

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

SECURITIES AND EXCHANGE COMMISSION,

Plaintiff,

v.

TERRAFORM LABS PTE LTD. and
DO HYEONG KWON,

Defendants.

No. 1:23-cv-1346 (JSR)

**SECURITIES AND EXCHANGE COMMISSION’S REPLY IN SUPORT OF MOTION
TO EXCLUDE THE TESTIMONY AND OPINIONS OF DR. CHRISTINE A. PARLOUR**

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PRELIMINARY STATEMENT

Plaintiff Securities and Exchange Commission (“SEC”) respectfully submits this reply in support of its Motion to Exclude the Opinions of Dr. Christine A. Parlour, proffered by Terraform Labs PTE, Ltd. (“Terraform”) and Do Hyeong Kwon (“Kwon”) as an expert witness.

As we demonstrated in our opening brief, Dr. Parlour’s opinions should be excluded because they are irrelevant factual narratives devoid of any methodology or evidentiary basis. Defendants’ opposition brief (“Def. Br.”) confirms that Dr. Parlour’s opinions should be excluded. First, Defendants attempt to sidestep the prohibition against expert’s offering factual narratives by arguing that Dr. Parlour’s narratives are merely “background for her actual opinions.” Def. Br. 3. But the factual narratives *are* her opinions. Dr. Parlour’s first opinion is merely a factual “overview” of the Terraform crypto assets, and her second opinion addresses the factual question of whether the risk of a UST depeg “had been discussed by T[erraform], regulators, and other market participants.” Ex. 1 to SEC’s Motion, Parlour Report at ¶ 9. These are narratives that may not be presented through an expert. Second, Defendants argue that Dr. Parlour used a reliable methodology, but (like Dr. Parlour’s report) they never identify or explain that methodology. Third, Defendants acknowledge that Dr. Parlour looked at no Terraform internal documents, no fact deposition transcripts, and spoke to no Terraform employees, thus confirming that she failed to consider sufficient facts for her opinions.

ARGUMENT

I. Defendants’ Opposition Confirms that Dr. Parlour’s Opinions are Factual Narratives

A. Dr. Parlour’s First Opinion is Merely a Factual Narrative and Should be Excluded

Dr. Parlour’s first opinion is a factual recitation of the Terraform ecosystem, including that it had a “wide variety of different applications, tokens, and use cases.” Ex. 1 to SEC Mot.,

Parlour Report ¶¶ 12, 39-67. Perhaps recognizing these narratives are not proper expert testimony, Defendants’ opposition seeks to recast Dr. Parlour’s opinions. Defendants now argue that “Prof. Parlour is not explaining *what* the ‘applications, tokens, and use cases’ are, but *why* they are ‘unique’ and how they operate[.]” Def. Br. 4 (emphasis in original). But Defendants’ new spin is contradicted by Dr. Parlour’s report, which devotes over 10 pages to a description of Terraform’s tokens, applications, and their supposed use cases – the very things about which Defendants now say Dr. Parlour is *not* offering an opinion. Ex. 1, Parlour Report ¶¶ 12, 39-67.

The opinions Defendants now claim that Dr. Parlour *is* offering (that the Terraform ecosystem is “unique” and how Terraform crypto assets “operate[d]”) are either not in her report or were disclaimed by Dr. Parlour in her deposition. Other than one offhand statement that the Terraform ecosystem is “unique,” Ex. 1, Parlour Report ¶ 12, Dr. Parlour’s report contains no discussion whatsoever regarding why or how the Terraform ecosystem is unique, what standards Dr. Parlour used to make that assessment, nor do Defendants explain why the issue is relevant to any claim in this case. *See generally* Ex. 1, Parlour Report. And, even though Defendants now argue Dr. Parlour’s report is about how the Terraform crypto assets “operat[ed],” Def. Br. 4, 6, Dr. Parlour repeatedly testified at her deposition that she did *not* know how the Terraform crypto assets operated,¹ just how they were “designed” based on Terraform’s marketing materials. *See, e.g.,* Ex. 2 to SEC to Mot., Parlour Dep. Tr. 134:9-23 (discussing UST); Tr. 173:18-174:8 (discussing the Mirror Protocol); Tr. 137:10-138:11 (discussing blockchain transaction fees).

¹ Defendants even concede that a “recounting of how Terraform crypto assets were used” is *not* the subject of proper expert testimony, but rather a “factual issue to be introduced at trial.” Def. Br. 6 (emphasis added). Because this is exactly what Defendants themselves claim Dr. Parlour has done, Def. Br. 4, her opinions should be excluded on this basis alone. *SEC v. Tourre*, 950 F. Supp. 2d 666 (S.D.N.Y. 2013) (“Acting simply as a narrator of the facts does not convey opinions based on an expert’s knowledge and expertise.”).

Defendants also try to couch Dr. Parlour’s factual contention that “control of the blockchain was not concentrated into the hands of a few founders” as proper expert testimony. Def. Br. 5 (citing Ex. 1, Parlour Report at ¶ 39). As we pointed out in our opening brief, the only support that Dr. Parlour provides for this factual contention is a Terraform webpage. Ex. 1, Parlour Report ¶ 39, n.35. Defendants provide a tortured explanation for why Dr. Parlour’s parroting of Terraform’s webpage is proper expert testimony:

But Dr. Parlour actually states, in her opinion, Terra exhibited characteristics of an ‘open-source and decentralized proof-of-stake blockchain,’ which is a conclusion she reaches *because* ‘the code behind the blockchain was publicly available . . . and [] control of the blockchain was not concentrated in the hands of a few founders.

Def. Br. 5 (emphasis original).

As explained in our opening brief, this is nothing more than Dr. Parlour narrating Terraform’s own self-serving statements that control of blockchain was not concentrated in Terraform’s founders, *ie.* that the Terraform ecosystem was decentralized. And Dr. Parlour *admitted* that she did not know whether Terraform’s protocols were actually decentralized, Ex. 2, Parlour Dep. Tr. 173:18-174:8, so the Court should not permit her to narrate to the jury Terraform’s litigation position on the issue. *Scentsational Techs. LLC v. Pepsi, Inc.*, 2018 WL 1889763, at *4 (S.D.N.Y. Apr. 18, 2018) (experts may not “act as a vehicle to present a factual narrative of interesting or useful documents for a case, in effect simply accumulating and putting together one party’s ‘story’”); *In re Rezulin Prods. Liability Litig.*, 309 F. Supp. 2d 531, 551 (S.D.N.Y. 2004) (excluding expert testimony that consisted of a narrative of the background of the case, in part because “the glosses that [the expert] interpolates into his narrative are simple inferences drawn from uncomplicated facts that serve only to buttress plaintiffs’ theory of the case”). This is especially so, “given the unique weight [expert testimony] may have in a jury’s

deliberations.” *Nimely v. City of New York*, 414 F.3d 381, 397 (2d Cir. 2005); *see also Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 595 (1993) (“Expert evidence can be both powerful and quite misleading because of the difficulty in evaluating it.”) (citation omitted).

Defendants’ opposition then contradicts itself and seek to walk back Dr. Parlour’s opinion on this point, arguing that Dr. Parlour was ***not even asked*** to opine on whether the Terraform ecosystem was decentralized.² Def. Br. 7 (decentralization of the Terraform ecosystem was “not something on which Prof. Parlour was asked to opine.”); *but see* Ex. 1, Parlour Report ¶ 65 (“Terra was an open-source and decentralized blockchain.”). According to Defendants, the “scope of [Dr. Parlour’s] testimony relates to the ‘different ways of determining whether or not something is decentralized’ and how those might fit Terra’s design.” *Id.* at 7 (citing Ex. 2., Parlour Dep. Tr. 184:1-25). But Dr. Parlour’s expert report contains no discussion whatsoever of the supposed “different ways” to determine whether a crypto asset ecosystem is decentralized, let alone how they may “fit” Terraform’s design, so she may not offer those opinions at trial. Fed. R. Civ. P. 26(a)(2)(B)(i) (expert reports must contain a “complete statement of all opinions the witness will express and the basis and reasons for them.”). In any event, Dr. Parlour admitted that she did not even analyze the “different ways” Defendants claim determine whether a blockchain is decentralized:

Q. And you haven’t done any of those [decentralization analyses] for the Terraform blockchain?

A. So with the Terraform blockchain, I looked at how it was – economically how it was designed and how it’s ***described as working***. And that’s what it used in my report.

Q. So your opinion regarding whether the Terraform

² As discussed in our opening brief, Dr. Parlour did not obtain her expert report assignment from Defendants’ counsel – who she did not meet until after issuing her expert report – but from the consulting firm Cornerstone Research. Ex. 2, Parlour Dep. Tr. 35:17-36:1.

blockchain was decentralized is based on how it was supposed to work, right?

- A. ***So I don't discuss the Terraform blockchain.*** I discuss the Mirror Protocol in my report. And my description of how it works is based on the [Terraform] white paper, yes.

Ex. 2, Dep. Tr. 184:16-185:3 (emphasis added); *see also* Tr. 174:7-8 (“Q. Was the Mirror Protocol decentralized? A. I don’t know.”).

Defendants next accuse the SEC of “misconstruing [Dr. Parlour’s] opinions” by pointing to Dr. Parlour’s factual narrative regarding the “the key projects on the Terra blockchain and their related tokens, what they offered users (in terms of use case and function) and some high-level mechanics of how those projects worked.” Def. Br. 5 (citing Ex. 1, Parlour Rep. ¶¶ 43-78). This argument also falls flat. The SEC’s Motion quoted that precise portion of Dr Parlour’s report that Defendants recount in their opposition, explaining exactly why it further shows that Dr. Parlour narrates facts and provides no opinions. SEC Mot. at 7 (“If Defendants wish to explain to the jury ‘some of the key projects on the Terra blockchain’ and ‘how those projects worked,’ those alleged facts should be presented through fact witnesses with personal knowledge, Fed. R. Evid. 602, not through the gloss of an expert witness.”).

B. Dr. Parlour’s Second Opinion Narrates Facts and is Not an Opinion

Dr. Parlour’s second opinion – that “T[erraform], regulators, and other market participants” discussed the risk of a UST depeg due to a “run” – is also not proper expert testimony. As we explained in our opening brief, this opinion includes improper narration of alleged facts, including that Terraform and Kwon “directly discussed the risk of a de-peg and took steps to protect against such a risk.” *Id.* at ¶ 89. More fundamentally, Dr. Parlour offers no actual opinions, just a recitation that others have discussed the risk of a “run” on UST, as she admitted in her deposition. Ex. 1, Parlour Report at ¶¶ 79-90; Ex. 2; Parlour Dep. Tr. 224:22-25

(“Q. So your opinion is just that the academic literature and industry participants discussed the risk of a run? A. That’s right.”). Her opinions are also confusing, because Dr. Parlour offers no opinion that a “run” actually caused the depeg of UST in May 2021. Ex. 2; Parlour Dep. Tr. 117:21-24 (“Q. So are you offering an opinion about what caused the UST depeg in your report? A. No, I’m not offering an opinion about what caused the UST depeg.”).

Defendants argue that the Court should not exclude Dr. Parlour’s opinion because it contains a “careful explication of the economics behind [the] UST [depeg].” Def. Br. 7. But Defendants provide no supporting citation for that supposed explication, *id.*, nor does Dr. Parlour’s report contain one. *See generally* Ex. 1, Parlour Report. Dr. Parlour’s report does not pretend to contain any analysis – her report merely recounts that others, including Terraform, “discussed” the risks that UST may depeg due to a “run.” *Id.* at 27 (“Academic Literature and Industry Participants Discussed the Risk that Large Shifts in Demand Could Lead to a Run”). Defendants also argue that Dr. Parlour does not need to know why UST depegged to observe that “T[erraform], regulators, and other market participants” discussed the risk of a UST depeg due a “run.” Def. Br. 7; Ex. 1, Parlour Report at ¶ 9. But Dr. Parlour uses these discussions regarding “run” risk to opine that the depeg was not “wholly unanticipated.” Ex. 1, Parlour Report at ¶ 90. Without offering an opinion that the depeg was caused by a “run,” her opinion that it was anticipated is baseless, confusing, and does not fit the case. *LVL XIII Brands, Inc. v. Louis Vuitton Malletier S.A.*, 209 F. Supp. 3d 612, 641 (S.D.N.Y. 2016) (holding because “the danger of confusion substantially outweighs any trifling probative value of [the expert’s] proffered opinions, preclusion is required under both Rules 403 and 702.”).

Defendants also make the odd claim that, “if the SEC believed that such an opinion [regarding the cause of the UST depeg] was necessary to **support** Dr. Parlour’s opinions, it could

have submitted a proposed rebuttal report.” Def. Br. 7 (emphasis added). But it is not the SEC’s responsibility to offer opinions to support Defendants’ experts. Defendants argue that the SEC should have proffered a rebuttal expert to Dr. Parlour for other reasons as well. Def. Br. 2, 6, 7. Defendants miss the point of the SEC’s *Daubert* motion. The SEC cannot properly designate an *expert* witness to respond to Dr. Parlour’s *factual* narratives – that is precisely why the opinion should be excluded. *In re Elysium Health-ChromaDex Litig.*, 2022 WL 421135, at *29 (S.D.N.Y. Feb. 11, 2022) (excluding expert opinion because it “does no more than counsel for plaintiff will do in argument – it merely recites facts that other witnesses have firsthand knowledge of and propound[s] a particular interpretation of those facts.”) (citations and internal quotation marks omitted).

II. Defendant’s Response Confirms That Dr. Parlour Employed No Methodology

In our opening brief, we demonstrated that Dr. Parlour employed no methodology whatsoever to form her opinions. SEC Mot. 11-14. That is because when an expert merely narrates facts, as Dr. Parlour has done, there is no methodology. *Tourre*, 950 F. Supp. 2d at 675 (“nor is [factual narration] traceable to a reliable methodology . . . mere narration thus fails to fulfill *Daubert*’s most basic requirements.”); *Luitpold Pharms., Inc. v. Ed. Geistlich Sohne A.G. Fur Chemische Industrie*, 2015 WL 5459662, at *3 (S.D.N.Y. Sept. 16, 2015) (same).

Dr. Parlour’s report never discusses a methodology, *see generally* Ex. 1, Parlour Report, and Defendants’ opposition confirms that her “methodology” is her “expertise and knowledge,” in other words, her experience. But, as we pointed out in our opening brief, courts routinely reject opinions based solely on an experts’ experience. *523 IP LLC v. CureMD.Com*, 48 F. Supp. 3d. 600, 643 (S.D.N.Y. 2014) (“an expert basing his opinion solely on his experience must do more than aver conclusorily that his experience led to his opinion[.]”); *Linkco, Inc. v. Fujitsu*

Ltd., 2002 WL 1585551, at *4 (S.D.N.Y. July 16, 2002))”[experts] must provide some explanation for their conclusions, rather than referring generally to their experience. Without good explanations, courts cannot assess the reliability of any conclusion drawn by an expert, even if he possesses relevant experience.”); *United States v. Ulbricht*, 2015 WL 413318, at *7 (S.D.N.Y. Feb. 1, 2015) (“When an expert witness fails to identify the objective bases for his opinion, the district court cannot perform a proper assessment; a proffered opinion deficient in this manner fails to meet the basic requirements of the Federal Rules of Evidence”).

Defendants do not even attempt to distinguish this case law. Instead, Defendants cite to *Medidata Sols., Inc. v. Veeva Sys., Inc.*, for the proposition that “[p]ulling together information from a broad array of sources and synthesizing it into a qualitative analysis is an acceptable methodology for expert testimony.” 2022 WL 585715, at *2 (S.D.N.Y. Feb. 24, 2022). But that is not what Dr. Parlour did – her report contains no “analysis” of a “broad array of sources” – she simply repeats facts from Terraform’s marketing materials and rehashes what others have “discussed” regarding the risk of a UST depeg. Dr. Parlour’s lack of a methodology is thus fatal to her opinions even under the case law relied upon by Defendants. *See also CFTC v. Moncada*, 2014 WL 2945793, at *3-4 (S.D.N.Y. June 30, 2014) (excluding expert opinion that “offers credentials rather than analysis.”) (citation omitted).

Defendants also argue that Dr. Parlour’s “categorization” of crypto asset types is the product of a reliable methodology. Def. Br. 9. But Dr. Parlour could not identify any authoritative source for that categorization (nor does her report cite any), instead remarking that “I am one.” Ex. 2, Parlour Dep. Tr. 107:10-108:3. This is exactly the type of *ipse dixit* testimony that Courts rightly exclude. *Tourre*, 950 F. Supp. 2d at 678 (excluding expert’s testimony based on “economic logic” as “simply a form of inadmissible *ipse dixit* . . . [t]he law is

clear that mere *ipse dixit* is not appropriate expert testimony because it is not based on reliable methodology, as *Daubert* requires.”). There is no way to test Dr. Parlour’s categorization, because it is based on nothing but her say-so. And Dr. Parlour’s failed even to opine that any of the Terraform crypto assets fall into her “categories” of crypto assets, making her opinions entirely unhelpful even if they were the product of reliable methodology. Ex. 2, Parlour Dep. Tr. 108:11-16; *LVL XIII Brands, Inc.*, 209 F. Supp. 3d. at 641 (“[T]estimony must be both reliable and relevant in that it ‘fits’ the facts of the case.”). Worse, Dr. Parlour omitted a category of token from her report relevant to this case – a “securities token” – even though she published an article referencing that type of token and how crypto assets are a “new type of investible instrument.” *Hu, Albert and Parlour, Christine A. and Rajan, Uday, [Cryptocurrencies: Stylized Facts on a New Investible Instrument](#)* (May 3, 2018). She also omitted that publication from her expert report. Ex. 1, Parlour Report, Appendix A.

III. Dr. Parlour Did Not Consider Sufficient Facts or Data to Form Her Opinions

As we pointed out in our opening brief, even though Dr. Parlour’s opinions purport to detail the characteristics of the Terraform ecosystem, she never spoke with a single Terraform employee, did not review any deposition transcripts of Terraform former or current employees, and did not review a single internal Terraform document. Ex. 1, Parlour Report, at Appendix C; Ex. 2, Parlour Dep. Tr. 22:19-23:1. Defendants offer no explanation whatsoever for these failures, except to say that Terraform employees “are not experts in academic literature.” Def. Br. 10. Defendants again miss the point. Dr. Parlour’s report purports to provide a detailed description that the Terraform blockchain had a “wide range of applications and use cases,” so her failure to consider any facts related to Terraform other than their marketing materials means she failed to consider sufficient data. *See Moncada*, 2014 WL 2945793, at *3-4 (“[t]he mere fact

that so much relevant data was not even ‘eye-balled,’ let alone analyzed, renders [the expert’s] testimony about the lack of market impact ... highly suspect”).

As just one example, Dr. Parlour’s report repeatedly emphasizes the importance that UST was supposedly used as a “medium of exchange” similar to fiat currency like the U.S. dollar. Ex. 1, Parlour Report at ¶¶ 46, 55. But Dr. Parlour does not know if UST was ever actually used as a “medium of exchange,” because she didn’t analyze the blockchain and never spoke with anyone at Terraform. Ex. 2, Parlour Dep. Tr. 134:9-23; Tr. 133:16-21 (“Q. Was UST actually used as a means of payment? A. So, as noted, I haven’t done a wallet-to-wallet investigation, so peer-to-peer payment flows, which are difficult to do. I haven’t done that, so I can’t say.”); Tr. 137:6-9 (“Q. But you can’t identify an example of UST being used by a store or merchant? A. That’s right. I don’t have a concrete example.”).

Dr. Parlour’s opinion that academic literature “discussed” the risks of a UST depeg similarly lacks sufficient data. As we pointed out in our opening brief, Dr. Parlour cited historical examples of “bank runs,” *id.* at ¶ 80, but ignored a Terraform white paper that minimized the risk of a depeg. *Platias, Nicholas and Di Maggio, Marco, [Terra Money: Stability Stress Test](#)*, (May 2019). Defendants’ response fails to address this omission. Def Br. 10-11. Defendants’ opposition also confirms that Dr. Parlour did not review Kwon’s or Terraform’s still-active Twitter accounts and other public communications, in which Kwon and Terraform repeatedly touted the stability of the UST peg and assured investors that UST would *not* depeg, the opposite of Dr. Parlour’s conclusion that a depeg was “anticipated.” SEC Mot. 16.

CONCLUSION

For the foregoing reasons, and those contained in our opening memorandum, the Court should preclude Dr. Parlour from offering opinions in this case under Fed. R. Evid. 702.

Dated: November 10, 2023

Respectfully submitted,

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